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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,395	09/10/2003	Koichi Ueno	500.43123X00	2261

7590 08/22/2005

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EXAMINER

MOAZZAMI, NASSER G

ART UNIT

PAPER NUMBER

2187

DATE MAILED: 08/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/658,395	UENO, KOICHI	
	Examiner Nasser G. Moazzami	Art Unit 2187	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 10 September 2003.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-16 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-16 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 2/15/05 & 9/10/03

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. Information Disclosure Statement submitted by applicant on 09/19/2003 and 02/15/2005 has been considered. See attached PTO-1449.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by JP10222312, hereinafter JP.

As per claim 1, JP discloses a storage device, comprising: plural storage volumes for storing data [**first memory, second memory and third memory**]; means for receiving a request for update of the data at a prescribed point in time to be stored in a first of the storage volumes after the prescribed point in time [**a portion or all of the**

data acquired by the first memory controller are stored in a first memory medium]; means for storing a duplicate of the data at the prescribed point in time requested to be updated onto a second of the storage volumes [the updated data are recorded in a second memory medium]; and means for storing in an unused storage area of a third of the storage volumes a duplicate of the data at the prescribed point in time requested to be updated according to a state of the second storage volume [when an amount of updated data exceeds a constant rate, backing up a copy of a portion or all of the updated data to a third memory medium].

As per claim 9; claim 9 encompasses the same scope of the invention as that of claim 1. Therefore, claim 9 is rejected for the same reasons as stated above with respect to claim 1.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2-8 and 10-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP in view of Yuasa (US Patent No. 6636953).

As per claims 2-8, JP discloses the claimed invention, but fails to specifically teach storing the duplicate of the data at the prescribed point in time requested to be

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updated onto an unused storage area of the third storage volume when a storage capacity of the unused storage area of the second storage volume is smaller than a judgment value.

Yuasa teaches an apparatus having a display unit for showing a storage capacity, the user is able to select storage medium for the content to be stored thereon, showing a warning to the user if not enough space available and a control unit for receiving and storing contents in the memory, wherein the control unit judges whether the storage medium has an enough free space to store the content and if there is not enough free space, the control unit stores the content to another (external device) storage medium [column 2, lines 43-62 and column 29, line 35 through column 31, 53].

Accordingly, it would have been obvious to one having ordinary skill in the art at the time of the current invention to use the concepts of storing the content in another storage medium if there is not enough space in the medium as being taught by Yuasa into JP's method of backing up of the data in order to eliminate writing of the new data over the content that is already stored in the storage medium.

As per claims 10-16; claims 10-16 encompass the same scope of the invention as those of claims 2-8. Therefore, claims 10-16 are rejected for the same reasons as stated above with respect to claims 2-8.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. 6862671 (Bergsten) discloses a first, second and third storage for making mirroring and backup.

US Patent No. 6519581 (Hofmann) discloses a display for warning the user with the information in regard to the disk space.

US Patent No. 5644698 (Cannon) teaches maintaining data consistency between storage volumes.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nasser G. Moazzami whose telephone number is (571) 272-4195. The examiner can normally be reached on 7:00AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on (571) 272-4201. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

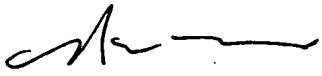
9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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NASSER MOAZZAMI
PRIMARY EXAMINER



08/17/2005